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ABSTRACT

In spite of general concern about the impact on women's mental health of multiple roles, most studies have examined only the impact of individual roles. This study examined the relationship between multiple-role occupancy and quality and psychological distress in a disproportionate random sample of employed female health care workers (N=403). Subjects were interviewed in their homes or offices about their major social roles, psychological distress, well being, and physical health. The results indicated that there were no negative spillover effects from work to parenting or from parenting to work. Most importantly, there was evidence of positve spillover effects from work to parenting. Women with rewarding jobs were protected from the negative mental health effects of troubled relationships with their children. Moreover, this protection accrued to employed women regardless of their partnership status or whether they had preschool-age children. These findings suggest mechanisms by which women reap a mental-health advantage from multiple roles, even when some of those roles are stressful. Future research is needed to determine if the findings apply to women employed in non-health care occupations. (Author/ABL)

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This paper is based on data from a short-term longitudinal study of workplace and non-workplace stressors and mitigators of stress among women health-care providers. Data for this paper come from the first of three interviews and were collected in 1986-87.

Abstract

This paper examines the relationship between multiple-role occupancy and quality and psychological distress in a disproportionate random sample of 403 employed female workers. We estimated both main- and interactive-effects models of the relationship between psychological distress and the quality of the worker and parent roles. Negative- and positive- spillover effects, from work to parenting and from parenting to work, were operationalized and estimated in an attempt to illuminate the processes by which multiple roles affect employed women's vulnerability or resilience to psychological distress. Results indicate no negative spillover effects from work to parenting or from parenting to work. Most importantly, we found evidence of positive-spillover effects from work to parenting. Women with rewarding jobs were protected from the negative mental-health effects of troubled relationships with their children. Moreover, this protection accrued to employed women regardless of their partnership status or whether they had preschool-age children. These findings suggest mechanisms by which women reap a mental-health advantage from multiple roles, even when some of those roles are stressful.

Are employed mothers at greater risk for psychological distress than employed women who are not mothers? Although this question is at the heart of much heated discussion, surprisingly little research has been addressed specifically to it. In this paper we address this question using data from a random sample of employed women.

In spite of general concern about the impact on women's mental health of multiple roles, most studies examine only the impact of individual roles[1]. Thus, considerable research has addressed the issue of the relative mental health of employed versus non-employed women and of mothers versus non-mothers. We know, for example, that employed women report lower levels of anxiety and depression than non-employed women (Barnett & Baruch 1985; Brown & Harris 1978; Thoits 1983), and that mothers report more symptoms of distress than non-mothers (Barnett & Baruch 1985; McLananhan & Adams 1987; Veroff Douvan & Kulka 1981).

Recent work indicating that the more roles a person (male or female) occupies, the better their mental health (Seiber 1974; Thoits 1983), suggests that employed mothers would report fewer symptoms of psychological distress than employed non-mothers. However, considerations of role conflict and role strain suggest that combining the roles of mother and paid employee, both of which are often demanding, would be particularly stressful and, therefore, associated with high levels of psychological distress. Many researchers caution that to understand the relationship between multiple roles and mental health, a focus on role occupancy per se is less fruitful than a focus on role quality (Barnett & Baruch 1985; Kotler & Wingard 1989). Accordingly, occupancy of the role of mother would not by itself be predictive of distress

levels among employed women; the quality of their experience in the maternal role would be.

There are data to suggest that single mothers are at higher risk for stress-related mental-health problems than are partnered mothers (McLanahan & Adams 1987), and that risk for depression among mothers is related to the number of preschool-age children at home (McLanahan & Adams 1987; Pearlin 1975). Thus, although the main focus in this paper is on the roles of paid employee and mother, in every analysis the effects of partnership status and number of preschool children at home are also examined.

How is the relationship between psychological distress and role quality in one role affected by role quality in another role? Broadly speaking, there are two contrasting views: quality of experience in roles can have either independent or interactive effects on mental health (see Figure One). If the effects are independent, then the quality of experience in one role

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Insert Figure One about here

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does not influence how psychological distress relates to the quality of experience in the other role. If the effects are interactive, then such influence does occur and the way in which the effects combine will vary depending on the quality of experience in the other role.

The independent-effects model suggests that employed women leave their home-based woes behind them when they arrive at work and do not bring home their work-related problems when they leave the office. Most research examining the effects on mental-health states of role quality in only one role at a time implicitly assumes an independent-effects model, yet no empirical

evidence has been presented to support such a model. If such evidence were found, it might facilitate our modelling of the process by which women with multiple roles, some of which are stressful roles, do not report high distress.

In contrast, the interaction-effects model posits that emotional feelings generated in one arena -- work or family -- spill over into the other, resulting in increased vulnerability or resilience to psychological distress (i.e., spillover effects). Spillover effects would occur, for example, if employees who feel overloaded at work bring their distress home, rendering them less able to cope with home-based stressors and, therefore, more susceptible to such stress-related states as anxiety and depression.

Most of the research in this area has been limited to documenting emotional spillover, i.e., to demonstrating a relationship between affective experiences in one role and affective experiences in another. Moreover, most of the research on emotional spillover has been done on male samples (Evans & Bartolome 1980, 1984) and has focused on negative spillover from work to family. Crosby's findings (1984) of positive correlations between job satisfaction and home satisfaction for men and women suggests positive spillover. The typical study is cross-sectional in design and reports a correlation between the experience of occupational stress and negative family experiences. Beside the obvious problems of interpretation, such findings do not address the question of whether spillover has mental-health consequences. In order to demonstrate such effects on psychological distress, one has to show that the interaction between the two role-quality measures accounts for a significant proportion of the variance in psychological distress, over and above that accounted for by the individual role-quality measures themselves.

One view holds that spillover from family to work is more prevalent among employed women, whereas spillover from work to family is more common among men (Pleck 1977). Accordingly, employed women with family roles bring their home-based woes to work, thereby rendering them less able to cope with the demands of the job and by extension more vulnerable than women without family roles (and men) to psychological distress. This thinking suggests negative-spillover effects from family to work for women. The other version of negative-spillover effects, i.e., from work to family, has generated much of the concern expressed in the popular media about the disastrous effects of work on the children and husbands of employed women. In this version, women bring home their work-related problems which then contaminates their home life, resulting in heightened distress for themselves as well as their children. In contrast, the notion of positive-spillover effects, i.e., that distress would be lowered by work rewards offsetting parental woes or parental rewards offsetting work woes has received little attention (see Crouter 1984 for an exception)[2].

Evidence of negative-spillover effects on psychological distress would support the role-strain and role-conflict models underlying the relationship between stress and illness. Evidence of positive spillover-effects would suggest a mechanism by which the mental health of employed mothers would benefit from multiple roles, as long as one role was rewarding.

Using data from a disproportionate, stratified, random sample of 403 employed women ages 25 to 55, this study addresses the following questions:

1. How does occupancy of the role of mother affect the psychological distress of employed women?

2. Does the quality of women's experience in her roles of mother and

employee have independent or interactive effects on their experience of psychological distress?

3. If the effects are interactive, is there evidence of negative or positive spillover?

Method

Sample

The data for these analyses come from the first year of a three-year longitudinal study of a disproportionate, stratified, random sample of 403 women employed at least half-time in one of two health care professions -- licensed practical nursing and social work. These two professions were selected on the basis of four criteria: (1) they are female professions; (2) they are high-strain professions; (3) they are part of an important, expanding sector of the American economy; and (4) they are professions with public licensure records, thereby facilitating identification of populations from which to draw a sample.

Within the two occupations, the sample was stratified on race, parental status, and partnership status (women who were either married or living with a partner were defined as "partnered"). Sixty-one women (15.3%) were black, and 342 (84.7%) were white. Approximately half of the sample was partnered (n=198, 49.1%) and roughly half had children (n=229, 56.8%). About half of the women with children were also partnered (n=123, 53.7% of all mothers); the other 106 mothers were single mothers. The respondents' children ranged in age from less than one year to over 30 years old, and the average family size

was 2.5 children. Most of the mothers were not caring for young children; only 13.9% had a child under age six. In contrast, 45% of the mothers had children 18 years old or older.

The mean age of the respondents was 39.5 years (sd = 7.4). On average, they had been working in their respective fields for 11 years (the range was 2 to 35 years) and at their current jobs for six years. They worked 38 hours per week on average, and 80% worked the same schedule on a regular basis. The mean individual income in 1985 was $24,400 (sd = $2,700).

All the respondents lived within a 25-mile radius of Boston. Respondents were interviewed in their homes or offices by a trained interviewer. The interviews lasted about 2 hours and covered each woman's major social roles, i.e., employee, mother, partner, as well as indices of psychological distress, well-being, and physical health. Respondents were paid a fee of $10 for participating. Of the potential respondents whom we contacted, only 4% refused to participate.

Measures

Role-quality. Role quality in the roles of worker and mother was assessed by rewards and concerns scales constructed originally from data gathered during extensive interviews with 72 women, ages 35 to 55 (See Baruch & Barnett, 1986 for a full discussion). For each role, subjects are instructed to think about their situation as it is right now and to indicate on a 4-point scale (1 = not at all to 4 = extremely) to what extent, if at all, each of the items is rewarding (or of concern). For example, for the role of paid worker, each employed subject was asked how rewarding she found "the job security" and to what extent was "the job's not using your skills" a concern. For the role of mother, each woman with children was asked how rewarding she found "the

love they show" and how much of a concern was "how they spend their free time". For the role of worker, there were 25- reward and 25-concern items; for the role of parent, there were 18-reward and 20-concern items. Each subject received two scores for each social role: a reward score and a concern score.

Test-retest reliability coefficients, calculated on a 10% random subsample within 1-3 months of the wave 1 interview, was .88 for both work rewards and work concerns, and .82 for parent rewards and .70 for parent concerns. Cronbach alpha for work rewards was .88; for work concerns, it was .89; for parent rewards, .83 ; and for parent concerns, .89. Role quality was operationalized as the difference between the reward and the concern scores (see Baruch & Barnett 1986).

Psychological distress. Psychological distress was assessed by the anxiety and depression subscales of the SCL-90-R, a frequency of symptoms measure (Derogatis 1975). Subjects indicated on a 5-point scale (from 0 = not at all, to 4 = extremely) how often in the past week they were bothered by each of 14 symptoms of anxiety and 10 symptoms of depression. The decision to combine the scales into a psychological distress score was based on the high correlation (r = .80) between the scales and on the similarity in the pattern of correlations between the anxiety and depression scales and the other variables of interest in the study.

The SCL-90-R has high levels of both internal consistency and test-retest reliability. In this sample, coefficient alpha was .88 for depression and .89 for anxiety. These figures are similar to those reported by Derogatis (1983). Satisfactory test-retest correlations (.82 for depression and .80 for anxiety) have also been reported (Derogatis 1983).

Results

Preliminary analyses comparing the two occupational groups indicated no significant differences on either the work reward and concern scales or the parent reward and concern scales. Using a dummy variable for occupation, a series of regression models was estimated to test for main and interactive effects of occupation on psychological distress. The main effect of occupation and the interactions between occupation and SES, race, age, and per capita income were non-significant. The two occupational groups, therefore, were combined for the analyses reported in this paper.

The Relationship between Parental Status and Psychological Distress

To estimate the relationship between parental status and psychological distress, a dummy variable for parental status (1= parent, 0 = non-parent) was entered as a predictor into a regression model that included a set of four controls: SES, age, race, and per capita income.[3] The regression model was not significant, indicating that among employed women, parental status alone was not a significant predictor of psychological distress. Thus, after controlling for age, race, SES and per capita income, employed mothers are at no greater risk of psychological distress than are employed women without children.

To test whether the relationship between parental status and psychological distress was conditioned by partnership status or by the number of preschool children, a dummy variable for partnership status (1= partnered, 0 = single) and a variable reflecting the number of preschool children at home (0= none, 1= one preschool child, 2= two preschool children) were also entered

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as predictors. In addition, three interaction terms reflecting parental status X partnership status, parental status X the number of preschool children, and partnership status X the number of preschool children were included. None of the main or interactive effects of partnership status or number of preschool children was significant. Thus, among employed women, after considering the effects of income, SES, age, and race, psychological distress is unrelated to parental status, independent of whether they are partnered or single or whether they have any preschool-age children at home.

The Relationship between Role-Quality and Psychological Distress

Analyses of the relationship between parental-role quality, worker-role quality and psychological distress were conducted on 211 mothers[4]. Parental-role quality, as noted above, was operationalized as the difference between a subject's total reward and total concern scores for the role of mother. Not surprisingly, this score shows the predicted relationship with distress, even after controlling for the effects of mothers' age, race, SES, and per capita income. Employed women with positive mother-child experiences report low psychological distress; employed women with troubled mother-child relationships report high distress. Thus, the quality of the maternal role, not occupancy per se, is the important predictor of distress among employed women. Similarly, women with higher worker-role quality scores report lower distress, even after controlling for the effects of SES, per capita income, race, and age.

Spillover: The Relationship between Worker-Role and Parent-Role Quality and Psychological Distress

We found evidence of emotional spillover, i.e., there was a significant correlation ($r = .26$, $p < .001$) between parent-role quality and worker-role quality. In other words, women who report positive experiences in their relationships with their children tend also to report positive experiences in their work role.

Spillover effects on mental health were operationalized as a significant relationship between psychological distress and the interaction of worker-role quality and parent-role quality. We estimated separate models of spillover effects from work to home and from home to work. To determine whether there were spillover effects from the worker role to the parent role, we estimated a series of regression models with the following variables as predictors: the control variables; parent-role quality, i.e., the difference between the reward and the concern scores on the parent scales; work rewards; work concerns; and two interaction terms reflecting positive- and negative-spillover effects from work to home. These interaction terms, work concerns X parent-role quality and work rewards X parent-role quality, reflect negative- and positive-spillover effects. To eliminate problems of collinearity, we estimated the relationships between these interaction terms and psychological distress in separate regression models.

Similarly, to estimate negative-spillover and positive-spillover effects from parenting to work, we examined parental rewards and parental concerns separately. These regression models included as predictors, the control variables; work-role quality (operationalized as the difference between work rewards and work concerns); parental rewards; parental concerns; and two

interaction terms (parental rewards X work-role quality and parental concerns X work-role quality).

Finally, two series of regression models were estimated to test whether spillover effects were conditioned by the employed mother's partnership status or by the number of preschool-age children she had at home. The first series included the above mentioned predictors as well as the dummy variable for partnership status and four three-way interaction terms: work rewards X parent-role quality X partnership status; work concerns X parent-role quality X partnership status; parent-rewards X work-role quality X partnership status; work concerns X parent-role quality X partnership status.(Each three-way interaction term was estimated separately.) The second series included as predictors the number of preschool-age children and the analogous three-way interaction terms.

Negative-spillover effects. The work to parenting regression model was significant, $F(8, 202) = 3.88$, $p < .001$, but the interaction term work concerns X parent-role quality was not, indicating there were no negative-spillover effects from work to parenting. (See Table One.)

Insert Table One about here

In other words, work-related troubles do not compound the negative effects on psychological distress of troubled relationships with children nor do they offset the positive effects of good relationships with children.

Analogous regression models were estimated for negative-spillover effects from parenting to work. Once again the regression model was significant, F (8,

202) = 4.781, p <.001, and the interaction term parent-role concerns X work-role quality was not significant, indicating no evidence of negative-spillover effects from home to work. Having problems with children neither obviates the relationship between good work-role quality and low psychological distress nor compounds the relationship between poor work-role quality and high-psychological distress.

In addition, there were no significant main or interactive effects of either partnership status or number of preschool children. In other words, independent of whether an employed mother was partnered or single or a mother of preschool children or not, there were no negative-spillover effects from parenting to work. These findings cast doubt on the assumption that single mothers are more vulnerable to stress-related mental-health problems than are partnered mothers. Whatever added mental-health risks single mothers face are arguably due to SES and per capita income deficits, not to the absence of a partner per se. The non-significant effect of number of preschool children may be due to the low percent of women in the study (15%, n = 32) who had any preschool-age children.

Positive-spillover effects. The work-to-parenting interaction-effects model was significant, F (8, 202) = 4.12, p <.001, as Table 2 shows. Moreover, the work rewards X parent-role quality interaction term, was significant

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Insert Table Two about here

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at p <.05, and its inclusion was associated with an increment to R^2 that was significant at p <.001. Thus, the effects of parent-role quality on psychological distress were conditioned by work rewards, as shown in Figure

Two[5]. Work rewards buffered employed women from the distress-exacerbating effects of troubled relationships with their children. At high levels of

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Insert Figure Two about here

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work reward, an employed mother with a troubled relationship with her children has a level of distress similar to that of an employed mother with a rewarding mother-child relationship. For mothers with rewarding relationships with their children, the level of work reward has little impact on their distress levels. It should be noted, however, that the combination of having troubled relationships with children and troubled work experience is associated with high-psychological distress.

The positive-spillover effects were not affected by the employed mother's partnership status or by the number of preschool children she had. Thus, positive-spillover effects from work to home are enjoyed equally by employed mothers with troubled relationships with their children, independent of whether they are partnered or single or the presence or number of preschool children.

Interestingly there were no positive-spillover effects from home to work. Thus, not even a rewarding experience with one's children offsets the negative association between a troubling work experience and high psychological distress.

Discussion and Conclusions

Employed mothers are at no greater risk of psychological distress than are employed women who are not mothers. This finding supports the growing

consensus that social-role occupancy per se is not predictive of mental-health outcomes. In contrast, the quality of employed mothers' relationships with their children was a significant predictor of psychological distress.

With respect to the nature of the relationship between psychological distress, on the one hand, and parental-role quality and work-role quality, on the other, there are two major findings. First, the relationships between psychological distress and affective experiences in the roles of worker and mother tend to be independent, not interactive. Second, the only exception to this rule is positive-spillover from work to parenting.

Contrary to widely-held assumptions, with respect to psychological distress, employed mothers compartmentalize their subjective experiences in their work and parenting roles. Such compartmentalization provides women, who occupy multiple roles, alternative arenas in which to reduce their experience of psychological distress. Thus, just as Gove and Tudor (1973) speculated about men, women with multiple roles can reduce stress arising in one arena by participating in another arena.

For employed mothers, the impact on mental health of problems at work is not compounded by problems at home. Similarly, the impact on mental health of problems at home is not compounded by problems at work. The absence of negative spillover-effects from home to work or from work to home is striking because it challenges popular views of women. This finding is consistent with that of Bolger, DeLongis, Kessler and Wethington (1987) and contradicts the view that the boundaries between family and work roles are "permeable" for women and therefore that women are less able to cope with stressors at work. This myth of permeability has fueled many popular debates over the ability of women with children to manage challenging jobs (Schwartz 1989).

The presence of positive-spillover effects from work to home is noteworthy for two reasons. First, it calls into question the belief that by occupying two demanding roles employed mothers will be under role strain and role conflict and will inevitably experience high-psychological distress. This view focuses solely on the stressors associated with roles, neglecting both role-related rewards and positive-spillover effects. Second, it provides a mechanism for explaining why employed mothers might enjoy better mental health than non-employed mothers (Barnett & Baruch 1985). Non-employed mothers do not have rewarding jobs which can buffer them from the distress associated with problems in their relationships with their children.

With respect to their mental health, being in a rewarding job compensates employed mothers for the negative effects of troubled relationships with their children. In this way, having a paid job benefits mothers because it provides the possibility, if the job is rewarding, of mitigating the distress-enhancing effects of poor relationships with their children. This mental-health advantage accrues equally to single and to partnered mothers and to those with preschool-age children, and helps explain the process underlying the general finding that multiple roles (some of which may be experienced as stressful) are beneficial to women. However, our data also confirm that women with <u>both</u> poor worker-role quality and poor relationships with their children experienced more psychological distress than other women. As long as at least one role is rewarding, employed mothers benefit from their multiple roles.

An important limitation on the generalizability of these findings is noteworthy. The women in this study are all employed in two health-care professions. Future research is needed to determine whether the findings apply to women employed in other occupations.

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Footnotes

1. In sharp contrast, considerable research deals with the effects of multiple-role occupancy on physical health states (Haynes & Feinleib, 1982; Kotler & Wingard, 1989; Repetti, Waldron & Matthews, 1989; Waldron & Jacobs, 1988, 1989; Verbrugge, 1983, 1986).

2. Indeed, previous studies of stress and illness, in general, and of spillover effects, in particular, have not included measures of work rewards and have, therefore, been unable to document positive-spillover effects.

3. SES was calculated as a linear combination of the number of years of education and occupation (1 = licensed practical nurse, 2 = social worker), based on the first component of a principle components analysis. Per capita income was entered separately and not included in SES because a principle components analysis indicated that it was independent of occupation and education.

4. The sample consisted of 227 employed mothers. However, per capita data were missing from 16 women, hence the sample for the regression analyses was reduced to 211.

5. For graphing purposes, high and low values were set at plus and minus one standard deviation for both variables.

Table 1: Negative Spillover

Predictor	Spillover From Work to Parenting		Spillover From Parenting to Work	
	B[a]	SE[b]	B	SE
Work Role Quality			-.26 **	.09
Work Rewards	-.15	.21		
Work Concerns	.41 *	.21		
Parent-Role Quality	-.24 **	.09		
Parent Rewards			.06	.14
Parent Concerns			.54 ***	.15
Work Concerns x Parent-Role Quality	-.21	.16		
Parent Concerns x Work-Role Quality			-.18	.13
R^2	.133		.160	
N	211		211	

[a] Unstandardized regression coefficients

[b] Standard errors of the regression coefficients

* $p < 0.05$; ** $p < 0.01$.

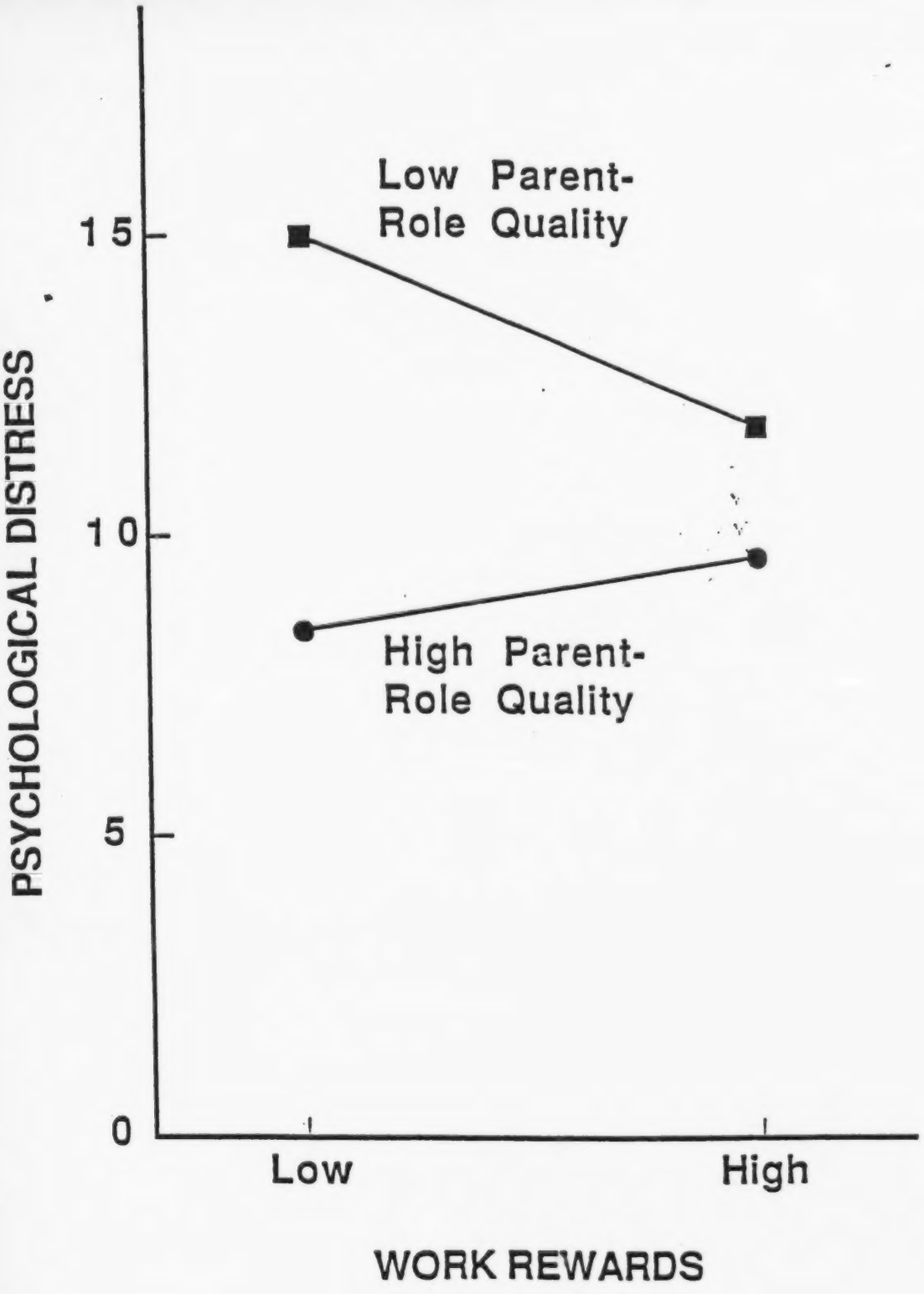
Table 2: Positive Spillover

Predictor	Spillover: From Work to Parenting		Spillover: From Parenting to Work	
	B[a]	SE[b]	B	SE
Work Role Quality			-.26 **	.09
Work Rewards	-.11	.21		
Work Concerns	.41 *	.21		
Parent-Role Quality -	.26 **	.09		
Parent Rewards			.05	.14
Parent Concerns			.56 ***	.15
Work Rewards x Parent-Role Quality	.31 *	.16		
Parent Rewards x Work-Role Quality			.16	.14
R^2	.140		.158	
N	211		211	

[a] Unstandardized regression coefficients

[b] Standard errors of the regression coefficients

* $p < 0.05$; ** $p < 0.01$.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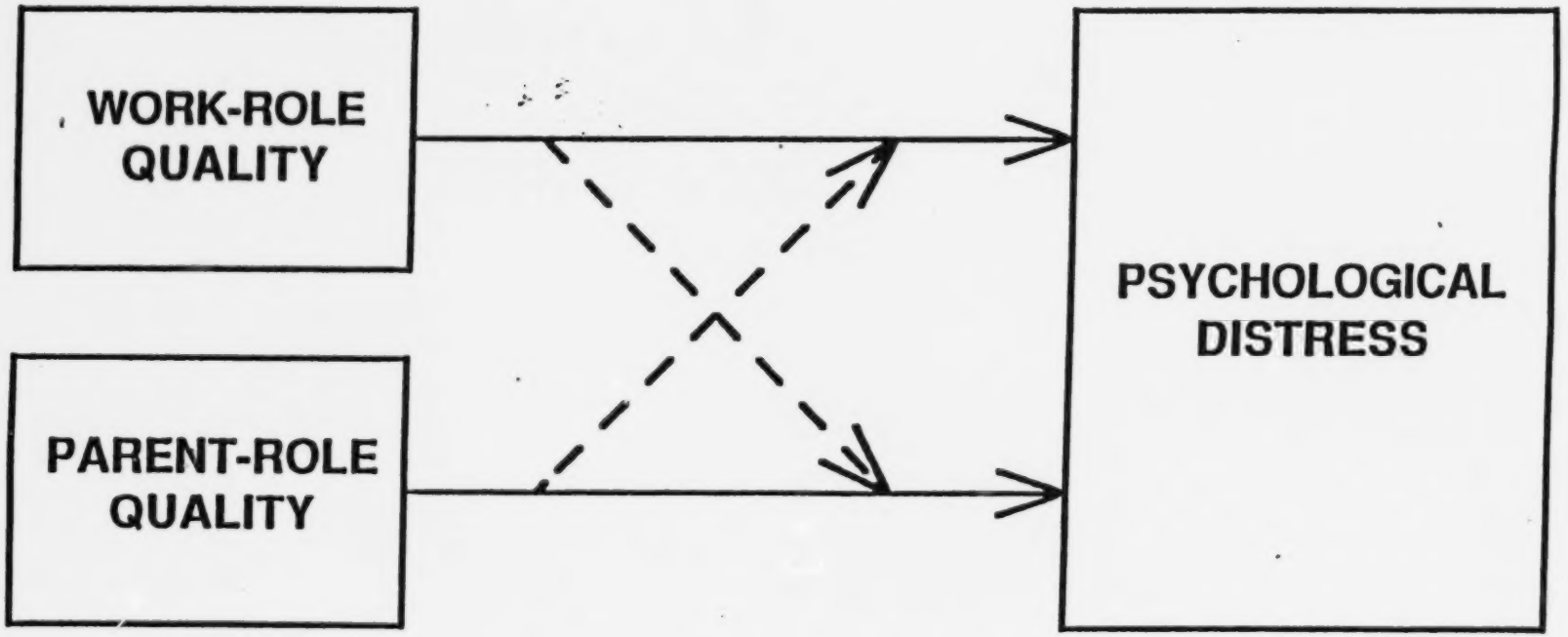
WORK-ROLE QUALITY
PARENT-ROLE QUALITY
PSYCHOLOGICAL DISTRESS